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# WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO

and  
FEDERAL-STATE-PRIVATE COOPERATIVE SNOW SURVEYS

AS OF  
May 1, 1981



U.S. DEPARTMENT of AGRICULTURE \* SOIL CONSERVATION SERVICE

Collaborating with  
COLORADO STATE SOIL CONSERVATION BOARD  
STATE ENGINEER of COLORADO  
and STATE ENGINEER of NEW MEXICO

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## Conveyance System Water Losses

Water losses in earthen conveyance ditches can total 10 to 50% of the water diverted from the stream or reservoir.

The type of soil that the ditch is cut into is the biggest factor in water losses. Sandy or gravelly soils lose the most water followed by the loams or medium textured soils. Heavy clay soils permit the smallest water losses.

Alluvial soils laid down in old river beds may have layers of soils alternating between heavy and sandy or gravelly soils. When a ditch is cut into these soils, the water has a tendency to move horizontally into the sandy or gravelly layers.

Sediment carried in the irrigation water tends to seal the ditch bottom and sides to a limited extent. As the water moves into coarse soils its velocity is reduced. Slower moving water carries a smaller sediment load. Thus, sediment is deposited in the first few inches of ditch edge or bottom. Finer sediment allows water to move through the soil at a slower rate so less water is lost.

Several things can be done to prevent seepage losses from ditches, including:

1. Line the ditch with concrete.
2. Install a pipeline.
3. Use other lining material that may be less durable but effective in the short term. This material may include metal, plastic or bentonite.

After a conveyance ditch is lined or piped, onfarm water management practices need to be changed. Suddenly an irrigator has more water to work with. If there was a 50% loss of water in the conveyance channel before ditch lining or piping was completed, he may have doubled his water supply. Putting this new quantity of water down the same number of furrows results in higher tailwater runoff. It can increase flow rates to the point that increased erosion will occur. The increased water supply should be used to irrigate larger sets.

Another change is a faster arrival time for water. Water in a lined or piped ditch moves much faster than in a meandering grass and brush filled earth ditch. The new channel is also laid out in a straight line without the zigzags common in an earthen channel. This results in a shorter distance for the water to travel. Velocities in a lined or piped ditch may average 3 to 5 feet per second. At this velocity, water can travel a mile in 15 to 30 minutes. It may have required 2 to 6 hours for this same distance in the earthen ditch.

Shorter travel times for water to get to the farm means it is easier to budget irrigation time.

Measurement structures are an important part of good onfarm water management. Knowing the quantity of water coming into the area to be irrigated allows the irrigator or irrigation system designer to design an efficient irrigation system.

The Soil Conservation Service has design information available to properly size irrigation systems. Knowing the soil type, the length of run in the field, flow rate of available water, and the slope of the field will enable the design of an efficient irrigation system.

"The Conservation of Water begins with the Snow Survey"

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## WATER SUPPLY CONDITIONS

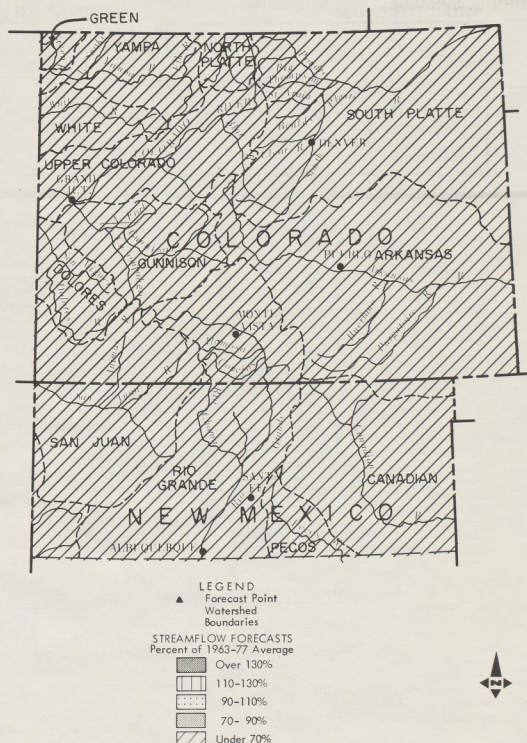
as of  
MAY 1, 1981

APRIL BROUGHT A RETURN TO THE PATTERN OF BELOW NORMAL PRECIPITATION WHICH PREVAILED MOST OF THE WINTER. IN ADDITION, ABNORMALLY WARM TEMPERATURES DURING THE MONTH CAUSED A MARKED DROP IN THE MOUNTAIN SNOWPACK. AT ELEVATIONS ABOVE 11,000 FT. WHERE INCREASES IN SNOWPACK ARE NORMALLY EXPECTED, MELT OF FROM 3 TO 7 INCHES OCCURRED. MOST OF THE MELT WHICH OCCURRED DURING APRIL WAS USED IN FULFILLING SOIL MOISTURE DEFICITS AND RESULTED IN MINIMAL RUNOFF. ALL FORECASTS ARE A JOINT EFFORT OF THE SOIL CONSERVATION SERVICE AND THE NATIONAL WEATHER SERVICE.



**COLORADO**-- BELOW NORMAL PRECIPITATION AND WARM TEMPERATURES DURING APRIL HAVE REDUCED STREAMFLOW FORECASTS AT ALL LOCATIONS FROM THE PREVIOUS MONTH. NEARLY ALL STREAMS ARE PRESENTLY EXPECTED TO FLOW BETWEEN 1/4 TO 1/2 OF NORMAL. STREAMS IN THE HEADWATERS OF THE ARKANSAS, SOUTH PLATTE AND COLORADO RIVER BASINS ARE EXPECTED TO PRODUCE FLOWS NEAR MINIMUM OF RECORD. MOUNTAIN SNOWPACK IN THESE BASINS IS THE LOWEST SINCE MEASUREMENTS BEGAN IN THE MID-1930'S. RESERVOIR STORAGE REMAINS HIGH WITH CONTENTS 12% ABOVE NORMAL.

**NEW MEXICO**-- FEW SNOW COURSE MEASUREMENTS WERE TAKEN NEAR THE END OF APRIL; NEARLY ALL COURSES WERE BARE. PRECIPITATION DURING APRIL WAS 84% OF NORMAL. BELOW NORMAL PRECIPITATION AND HIGH TEMPERATURES REDUCED FORECASTS ON MANY STREAMS. FORECASTS RANGE FROM 19% OF AVERAGE ON THE RIO GRANDE AT SAN MARCIAL TO 66% OF NORMAL ON RED RIVER. PRECIPITATION IN THE HEADWATERS OF THE RIO GRANDE IN COLORADO WAS EXTREMELY DEFICIENT DURING APRIL ACCOUNTING FOR A SUBSTANTIAL REDUCTION IN THE RIO GRANDE MAINSTEM FORECASTS. RESERVOIR STORAGE IS 191% OF NORMAL AND WILL PROVIDE MUCH NEEDED WATER SUPPLIES THIS SUMMER.

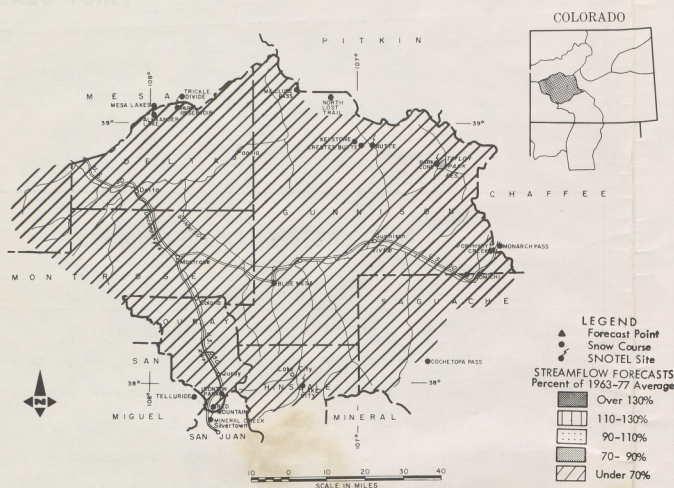


The map on this page indicates the most probable water supply as of the date of this report. Estimates assume average conditions of snowfall, precipitation and other factors from this date to the end of the forecast period. As the season progresses accuracy of estimates improve. In addition to expected streamflow, reservoir storage, soil moisture in irrigated areas, and other factors are considered in estimating water supply. Estimates apply to irrigated areas along the main streams and may not indicate conditions on small tributaries.

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# GUNNISON RIVER WATERSHED IN COLORADO



## YOUR WATER SUPPLY

SNOW COURSE MEASUREMENTS TAKEN NEAR MAY 1 INDICATE WELL BELOW AVERAGE SNOWPACK OVER THE ENTIRE BASIN. SURFACE CREEK WATERSHED IS NEAR 47% OF AVERAGE COMPARED TO 72% OF AVERAGE LAST MONTH. THE GUNNISON RIVER BASIN IS ONLY 26% OF AVERAGE COMPARED TO 64% OF AVERAGE LAST MONTH. PRECIPITATION OVER THE ENTIRE DRAINAGE BASIN WAS ONLY 54% OF AVERAGE FOR THE MONTH AND 75% OF AVERAGE FOR THE SEASON. BELOW AVERAGE PRECIPITATION HAS RESULTED IN STREAMFLOW FORECASTS BEING MUCH BELOW AVERAGE. RESERVOIR STORAGE WILL BE NEEDED TO SUPPLEMENT BELOW AVERAGE STREAMFLOWS FOR THE COMING SEASON.

## STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
Gunnison River inflow to Blue Mesa Reservoir (1)	345	46	754.0
Gunnison River near Grand Junction (2)	380	33	1150.0
North Fork of Gunnison (3)	135	52	262.0
Surface Creek at Cedaredge	10	66	15.2
Uncompahgre River at Colona	65	50	129.0

(1) Observed flow plus change in storage in Taylor Reservoir. (2) Observed flow plus change in storage in Blue Mesa, Morrow Point and Taylor Reservoirs. (3) Observed flow plus change in storage in Poudre Reservoir.

## WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" with Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Ohio Creek	Fair	Poor
Slate River	Fair	Poor
Taylor River	Fair	Poor
Tomichi Creek	Poor	Poor

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Stream and or RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	1963-77 Average
Blue Mesa	830	390	347	320
Morrow Point	121	117	117	105
Taylor	106	56	48	60

## SUMMARY of SNOW MEASUREMENTS

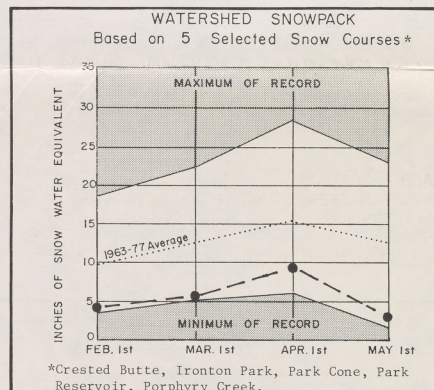
(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	1963-77 Average
Gunnison	13	14	26
Surface Creek	3	30	47
Uncompahgre	3	33	43

## SNOW COURSE MEASUREMENTS

SNOW COURSE	DATE OF SURVEY	SNOW DEPTH (INCHES)	CURRENT INFORMATION		PAST RECORD	
			WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVG. 1963-77
<b>GUNNISON BASIN</b>						
<u>Gunnison River</u>						
Alexander Lake	4/30	27	11.2	34.2	21.5	
Blue Mesa	4/28	0	0.0	6.4	2.7	
Butte	4/27	12	3.1	22.9	12.3	
Cochetopa Pass (B)	4/28	0	0.0	7.5	4.0	
Crested Butte	4/27	0	0.0	17.0	7.2	
Keystone	4/27	0	0.0	28.6	17.0	
Lake City	4/29	0	0.0	7.3	4.6	
Mesa Lakes (B)	4/29	20	7.4	21.5	15.7	
McClure Pass	4/30	0	0.0	18.7	9.9	
Park Cone	4/29	0	0.0	13.1	6.8	
Park Reservoir	4/30	30	9.4	36.2	23.2	
Porphry Creek	4/29	12	3.8	23.3	16.2	
Slungullion	4/29	13	4.0	18.0	—	
Tomichi	4/29	0	0.0	14.4	10.3	
<u>Surface Creek</u>						
Alexander Lake	4/30	27	11.2	34.2	21.5	
Mesa Lakes	4/29	20	7.4	21.5	15.7	
Park Reservoir	4/30	30	9.4	36.2	23.2	
<u>Uncompahgre River</u>						
Idarado	4/28	0	0.0	13.7	—	
Ironton Park	4/28	0	0.0	11.9	8.0	
Red Mountain Pass	4/28	50	18.4	38.8	31.9	
Telluride (B)	4/28	0	0.0	5.5	2.5	

12-15 degree.  
61-74 degree drainage.



## LIST OF COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

### STATE

Colorado State Engineer  
Colorado State Soil Conservation Board  
New Mexico State Engineer  
Colorado State University Experiment Station  
Rocky Mountain Forest and Range Experiment Station  
New Mexico Dept. of Game and Fish  
University of Colorado, INSTAAR

### FEDERAL

Department of Agriculture  
Forest Service  
Soil Conservation Service  
Department of Interior  
Bureau of Reclamation  
Geological Survey  
National Park Service  
Department of Commerce  
NOAA, National Weather Service  
Defense Department  
Army Engineer Corps  
National Aeronautics and Space Administration  
Goddard Space Flight Center

### INVESTOR OWNED UTILITIES

Colorado Public Service Company  
Public Service Company of New Mexico

### MUNICIPALITIES

City of Denver  
City of Boulder  
City of Greeley  
City of Fort Collins

### WATER USERS ORGANIZATIONS

Arkansas Valley Ditch Association  
Colorado River Water Conservation District

### IRRIGATION PROJECTS

Farmers Reservoir and Irrigation Company  
San Luis Valley Irrigation District  
Santa Maria Reservoir Company  
Costilla Land Company  
Montezuma Irrigation Co.  
Uncompahgre Valley Water Users' Association  
Twin Lakes Reservoir and Canal Company  
Trinchera Irrigation Co.

### CORPORATIONS

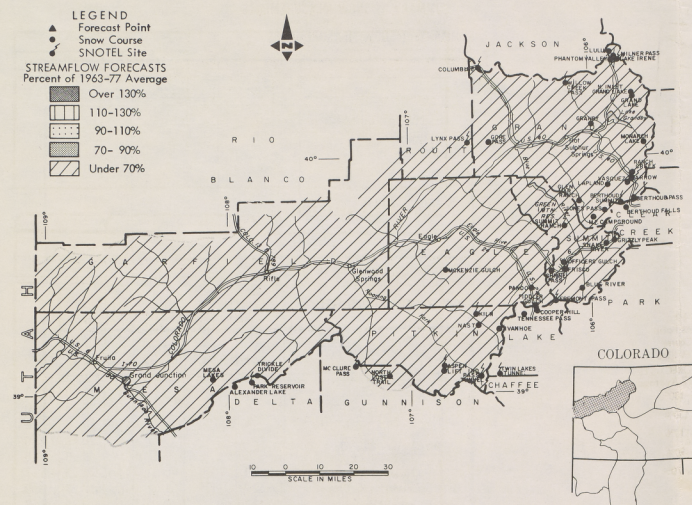
Aspen Skiing Corp.  
Colorado Fuel and Iron Corp.  
Climax Molybdenum Corp.  
Copper Mountain Ski Area  
Lake Eldora Corp.  
Vail Associates, Incorporated  
Vermejo Park Corp. (NM)  
Taylor Lumber and Land Company  
Idarado Mining Corp.

### PRIVATE CITIZENS

Otto Goemmer, Colorado  
Moreno Ranch, New Mexico



# COLORADO RIVER WATERSHED IN COLORADO



## YOUR WATER SUPPLY

SNOW SURVEYS NEAR THE END OF APRIL SHOW THE MOUNTAIN SNOWPACK AT ALL TIME RECORD LOW LEVELS IN HEADWATER AREAS NEAR THE CONTINENTAL DIVIDE. DUE TO HIGH TEMPERATURES AND PRECIPITATION WHICH AVERAGED ONLY HALF OF NORMAL DURING APRIL, STREAMFLOW FORECASTS WERE REDUCED ON ALL WATERSHEDS. PREDICTIONS FOR SNOWMELT RUNOFF NOW RANGE FROM A LOW OF 29% OF AVERAGE ON TROUBLESOME CREEK TO A HIGH OF 57% ON THE ROARING FORK. MOST HEADWATER STREAMS NEAR THE CONTINENTAL DIVIDE ARE EXPECTED TO PRODUCE FLOWS NEAR MINIMUM OF RECORD. SUBSTANTIAL MELT OCCURRED DURING APRIL AS HIGH AS 11,000 FT. BUT PRODUCED LITTLE RUNOFF.

## STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
East Fork Troublesome Creek near Dillon Reservoir	5	29	17.0
Blue River inflow to Dillon Reservoir	85	51	167.0
Blue River inflow to Green Mountain Reservoir (1)	145	50	287.0
Colorado River near Cameo (2)	1150	49	2336.0
Colorado River near Dotsero (3)	600	42	1422.0
Colorado River inflow to Granby Reservoir (4)	125	57	218.0
Eagle River below Gypsum	120	40	298.0
Roaring Fork at Glenwood Springs (5)	400	57	697.0
Williams Fork near Parshall (6)	18	30	59.0
Willow Creek inflow to Willow Creek Reservoir	20	42	48.0

(1) Observed flow plus diversions through Roberts Tunnel and change in storage in Dillon Reservoir. (2) Observed flow plus the change in storage in Dillon Reservoir. (3) Observed flow plus the change in storage in Dillon Reservoir. (4) Observed flow plus the change in storage in Dillon Reservoir. (5) Observed flow plus the change in storage in Dillon Reservoir. (6) Observed flow plus the change in storage in Dillon Reservoir.

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Stream and of Reservoir	Usable Capacity	Usable Storage		
		This Year	Last Year	1963-77 Average
Dillon	254	185	226	199
Granby	466	285	245	215
Green Mountain	139	68	41	48
Homestake	43	8	10	12
Ruedi	101	79	53	57
Vega	32	17	13	15
Williams Fork	97	70	47	36
Willow Creek	9	6	8	6

## WATER SUPPLY OUTLOOK Expressed as "Poor Fair Average Excellent" With Respect to Usual Supply

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Brush	Fair	Poor
Gypsum Creek	Fair	Poor

## SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN AND SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		LAST YEAR	1963-77 Average
Blue River	8	20	30
Colorado	20	17	25
Plateau	3	29	43
Roaring Fork	8	31	43
Williams Fork	3	12	18
Willow	2	8	10

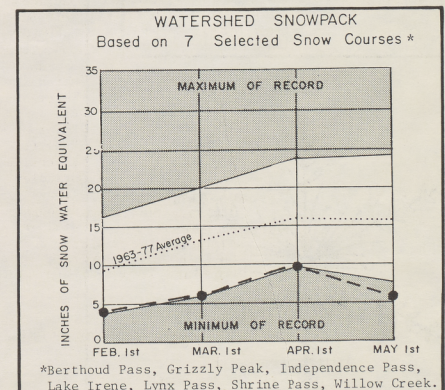
## SNOW COURSE MEASUREMENTS

SNOW COURSE	DATE OF SURVEY	CURRENT INFORMATION		PAST RECORD	
		SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVE. 1963-77
<b>COLORADO BASIN</b>					
<u>Blue River</u>					
Blue River	4/30	0	0.0	12.8	5.5
Fremont Pass	4/28	27	7.4	23.4	17.7
Grizzly Peak	4/29	22	8.3	21.7	19.5
Hoosier Pass	4/30	4	1.8	19.6	12.3
Officers Gulch	4/29	0	0.0	7.9	4.8
Shrine Pass	4/29	28	8.5	21.5	19.0
Snake River	4/30	0	0.0	9.4	3.5
Summit Ranch	4/29	0	0.0	10.6	5.2
<u>Colorado River</u>					
Arrow	4/29	0	0.0	17.0	11.5
Berthoud Pass	4/30	13	4.0	22.0	15.7
Berthoud Summit	4/29	27	9.4	25.4	20.5
Cooper Hill	4/28	22	5.7	17.9	11.7
Copper Mountain	4/29	11	4.8	17.0	---
Glenmar Ranch	4/29	0	0.0	7.0	4.6
Gore Pass	4/29	0	0.0	9.1	7.7
Grand Lake	4/23	0	0.0	11.0	5.0
Lake Irene	4/23	29	9.6	29.0	21.9
Lapland	4/27	3	1.1	11.1	7.5
Lulu	4/26	29	9.8	27.7	20.4
Lynx Pass	4/29	0	0.0	10.5	8.7
McKenzie Gulch	4/29	0	0.0	2.7	1.7
Middle Fork	4/29	0	0.0	10.7	6.3
Milner	4/23	14	4.3	16.2	12.4
North Inlet	4/24	2	0.5	9.9	6.3
Pando	4/29	0	0.0	9.1	7.8
Phantom Valley	4/23	0	0.0	14.2	7.1
Ranch Creek	4/29	0	0.0	14.0	9.5
Tennessee Pass (B)	4/28	0	0.0	12.4	7.4
Vail Mountain	4/29	37	12.6	28.6	---
Vasquez	4/28	19	6.4	18.8	12.6
<u>Plateau Creek</u>					
Mesa Lakes	4/29	20	7.4	21.5	15.7
Park Reservoir	4/30	30	9.4	36.2	23.2
Trickle Divide	4/30	39	12.5	39.7	26.4
<u>Roaring Fork</u>					
Aspen	4/25	31	10.4	19.0	18.4
Independence Pass	4/27	20	6.3	22.3	15.7
Ivanhoe	4/28	27	8.8	21.4	18.3
Klin	4/28	13	3.8	14.0	10.7
Lift	4/25	38	14.8	23.8	18.6
McClure Pass	4/30	0	0.0	18.7	9.9
Nast	4/28	0	0.0	5.8	2.4
North Lost Trail	4/30	0	0.0	18.2	8.6
<u>Williams Fork River</u>					
Glenmar Ranch	4/29	0	0.0	7.0	4.6
Jones Pass	4/28	15	4.9	23.1	15.6
Middle Fork	4/29	0	0.0	10.7	6.3
Ute Pass	4/30	0	0.0	10.2	---
<u>Willow Creek</u>					
Granby	4/26	0	0.0	6.3	4.4
Willow Creek Pass	4/27	4	1.5	13.7	10.8

NS-No survey.  
(B)-On adjacent drainage.

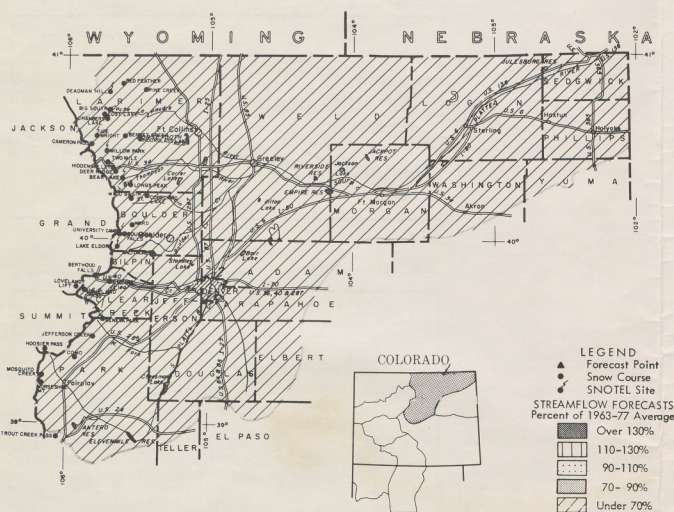


Access to mountain lakes and streams will occur early this year because of the low snowpack. (Photo courtesy of Colorado Division of Wildlife.)





# SOUTH PLATTE RIVER WATERSHED IN COLORADO



## YOUR WATER SUPPLY

APRIL BROUGHT A RETURN TO THE PATTERN OF DEFICIENT PRECIPITATION PREVALENT DURING MOST OF THE WINTER. PRECIPITATION AVERAGED ONLY 38% OF NORMAL FOR THE MONTH AT HIGHER ELEVATIONS. HIGH TEMPERATURES COUPLED WITH LOW PRECIPITATION HAS REDUCED MOUNTAIN SNOWPACK TO RECORD LOW LEVELS. AS OF MAY 1, SNOWPACK LEVELS WERE ONLY 20% OF NORMAL AND ONLY 14% OF THE SAME TIME A YEAR AGO. AS A RESULT, ALL STREAMS IN THE BASIN ARE PREDICTED TO PRODUCE FLOWS NEAR OR BELOW MINIMUMS OF RECORD IF AVERAGE PRECIPITATION IS RECEIVED THE REMAINDER OF THE SUMMER. RESERVOIR LEVELS ARE 8% ABOVE AVERAGE. SOIL MOISTURE IS FAIR IN IRRIGATED AREAS.

## STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
Bear Creek at Morrison	9.5	34	28.0
Big Thompson River at Drake (1)	50	49	102.0
Boulder Creek at Orodell	20	44	45.1
Cache La Poudre River at Canyon Mouth (2)	118	49	243.0
Clear Creek at Golden (3)	50	42	120.0
St. Vrain Creek at Lyons	30	42	71.6
South Platte River at South Platte	55	28	193.0

(1) Observed flow plus by-pass to power plants. (2) Observed flow minus trans-basin diversions plus municipal and irrigation diversions. (3) Observed flow minus diversion to Berthoud Reservoir, plus City of Golden and Church Reservoir diversions.

## WATER SUPPLY OUTLOOK Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Coal Creek	Poor	Poor
North Fork of South Platte	Poor	Poor
North Fork of Cache La Poudre	Fair	Poor
Ralston Creek	Poor	Poor
Rock Creek	Poor	Poor
South Platte from Greeley to Fort Morgan	Poor	Poor
South Platte from Fort Morgan to Sterling	Poor	Poor
South Platte below Sterling	Poor	Poor

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Stream and of RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	1963-77 Average
Antero	16	16	16	14
Barr Lake	32	28	30	26
Black Hollow	8	3	6	4
Boyd Lake	44	37	49	38
Cache La Poudre	10	9	10	8
Carter Lake	109	98	107	103
Chambers Lake	9	3	6	4
Cheesman	79	70	79	52
Cobb Lake	34	12	21	14
Eleven Mile	98	98	98	88
Empire	38	33	30	32
Fossil Creek	12	7	6	9
Gross	43	21	19	22
Halligan	6	6	6	6
Horsetooth	144	128	135	119
Jackson	35	34	32	34
Julesburg	28	23	23	23
Lake Loveland	14	10	12	10
Lone Tree	9	6	8	7
Mariano	6	5	5	5
Marshall	10	6	9	6
Marston	17	16	16	16
Milton	24	35	16	16
Point of Rocks	70	71	70	67
Prewitt	33	28	28	23
Riverside	58	58	52	57
Standley	42	34	41	26
Terry	8	5	3	6
Union	13	12	13	11
Windsor	19	15	15	12

## SUMMARY of SNOW MEASUREMENTS

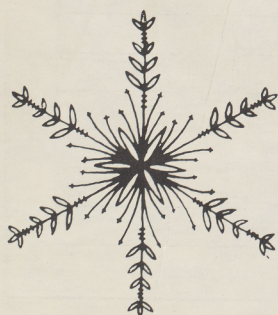
(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN AND OF SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		LAST YEAR	1963-77 Average
Big Thompson	3	11	17
Boulder	5	18	25
Cache La Poudre	9	22	27
Clear Creek	5	13	19
Saint Vrain	3	6	11
South Platte	3	11	17

## SNOW COURSE MEASUREMENTS

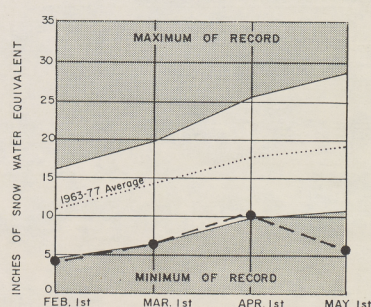
SNOW COURSE	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	PAST RECORD	
				LAST YEAR	AVG. 1963-77
<b>SOUTH PLATTE BASIN</b>					
<b>Boulder Creek</b>					
Baltimore	4/29	0	0.0	10.4	4.5
Boulder Falls	4/27	4	1.2	17.9	12.5
Lake Eldora	4/27	00	0.0	15.3	---
Niwot	4/30	0	0.0	---	---
University Camp	4/27	14	4.8	24.7	18.4
<b>Big Thompson River</b>					
Bear Lake	4/28	17	4.9	21.6	---
Deer Ridge	4/29	0	0.0	7.7	2.7
Hidden Valley	4/30	0	0.0	13.7	10.0
Lake Irene (B)	4/23	29	9.6	29.0	21.9
Long's Peak	4/28	6	2.2	16.1	12.3
Two Mile	4/30	14	4.1	20.9	16.9
Willow Park	4/29	14	4.8	29.9	---
<b>Cache La Poudre</b>					
Bennett Creek	4/29	0	0.0	10.0	5.1
Big South	4/30	0	0.0	0.0	0.6
Cameron Pass	4/30	24	10.0	31.0	32.1
Chambers Lake	4/30	0	0.0	10.8	6.4
Deadman Hill	4/29	23	6.8	21.5	17.8
Hourglass Lake	4/29	3	0.6	9.9	6.4
Joe Wright	4/30	37	12.9	31.1	28.8
Lost Lake	4/30	0	0.0	14.1	9.6
Red Feather	4/29	0	0.0	9.6	5.5
<b>Clear Creek</b>					
Baltimore (B)	4/29	0	0.0	10.4	4.5
Berthoud Falls	4/27	4	1.2	20.2	11.9
Empire	4/29	0	0.0	11.6	7.4
Grizzly Peak (B)	4/29	22	8.3	21.7	19.5
Loveland Pass	4/30	4	1.5	19.6	14.6
<b>St. Vrain River</b>					
Copeland Lake	4/25	0	0.0	8.3	2.8
Ward	4/27	0	0.0	8.9	5.5
Wild Basin	4/25	7	2.2	17.8	11.5
<b>South Platte River</b>					
Bison Reservoir	4/29	0	0.0	8.6	---
Como	4/29	0	0.0	9.1	5.2
Geneva Park	4/28	0	0.0	4.8	2.1
Horseshoe Mountain	4/29	1	0.4	17.7	10.4
Hoosier Pass	4/30	4	1.9	19.6	12.3
Jefferson Creek	4/29	0	0.0	14.1	8.0
Mosquito	4/30	0	0.0	15.9	6.1
Trout Creek Pass	4/29	0	0.0	7.7	1.9

NS-No survey.  
(B)-On adjacent drainage.



## WATERSHED SNOWPACK

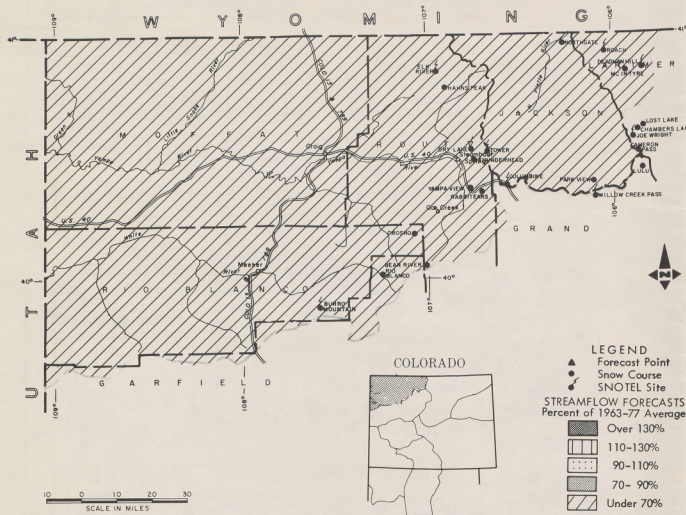
Based on 5 Selected Snow Courses\*



\*Berthoud Pass, Cameron Pass, Deadman Hill, Hoosier Pass, University Camp.



# YAMPA, WHITE AND NORTH PLATTE RIVER WATERSHEDS IN COLORADO



## YOUR WATER SUPPLY

PRECIPITATION OVER THE BASIN WAS ONLY 42% OF NORMAL FOR THE MONTH. NEW MINIMUM SNOW COURSE VALUES WERE RECORDED THIS MONTH. CAMERON PASS, IN THE NORTH PLATTE BASIN, RECORDED 10.0 INCHES OF WATER. THIS IS LESS THAN HALF THE PREVIOUS MINIMUM. TOWER SNOW COURSE NEW MINIMUM IS NOW 28.6 INCHES COMPARED TO 29.5 INCHES OF WATER RECORDED IN 1977. STREAMFLOW FORECASTS HAVE DECREASED FROM LAST MONTH BECAUSE OF BELOW AVERAGE PRECIPITATION. THEY RANGE FROM A HIGH OF 56% OF AVERAGE ON THE WHITE RIVER AT MEEKER TO A LOW OF 31% OF AVERAGE ON THE LARAMIE RIVER.

## STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
Elk River at Clark	105	53	198.0
Laramie River near Woods	39	31	125.0
Little Snake River at Lily	150	43	349.0
North Platte River at Northgate	56	24	238.0
White River near Meeker	160	56	287.0
Yampa River near Maybell	400	44	905.0
Yampa River at Steamboat Springs	130	48	273.0

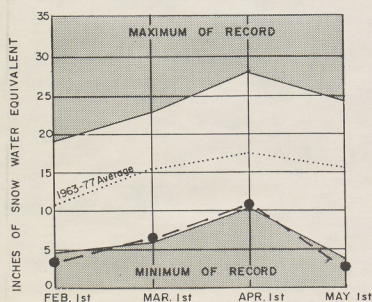
## WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" with Respect to Usual Supply

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Canadian River	Fair	Poor
Hunt Creek	Poor	Poor
Illinois River	Poor	Poor
Michigan River	Fair	Poor
Oak Creek	Poor	Poor
Trout Creek	Poor	Poor

## WATERSHED SNOWPACK

Based on 5 Selected Snow Courses\*



## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		LAST YEAR	(1963-77) Average
Elk	2	0	0
Laramie	3	21	33
North Platte	5	17	19
White	2	13	16
Yampa	8	26	32

## SNOW COURSE MEASUREMENTS

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVG. 63-77
NORTH PLATTE BASIN					
<u>Laramie River</u>					
Deadman Hill	4/29	23	6.8	21.5	17.8
McIntyre	4/27	2	0.4	13.4	10.7
Roach	4/27	28	8.7	25.2	19.5
<u>North Platte River</u>					
Cameron Pass	4/30	24	10.1	31.0	32.1
Columbine Lodge	4/27	3	1.9	23.6	20.7
Northgate	4/28	0	0.0	7.3	4.1
Park View	4/27	1	0.3	7.6	6.8
Willow Cr. Pass (B)	4/27	4	1.5	13.7	10.8
YAMPA BASIN					
<u>Elk River</u>					
Elk River	4/29	0	0.0	18.6	16.1
Hahn's Peak	4/29	0	0.0	14.6	9.1
<u>White River</u>					
Burro Mountain	4/28	13	4.0	17.4	14.9
Rio Blanco	4/28	0	0.0	14.0	10.4
<u>Yampa River</u>					
Bear River	4/30	0	0.0	11.4	7.5
Columbine (B)	4/27	3	1.9	23.6	20.7
Crosho	4/30	0	0.0	16.7	11.8
Dry Lake	4/27	17	7.0	24.2	17.8
Lynx Pass (B)	4/29	0	0.0	10.5	8.7
Rabbit Ears	4/27	36	11.6	29.6	27.1
Tower	4/28	70	28.7	59.4	53.5
Yampa View	4/27	0	0.0	14.3	9.8

NS-No survey.

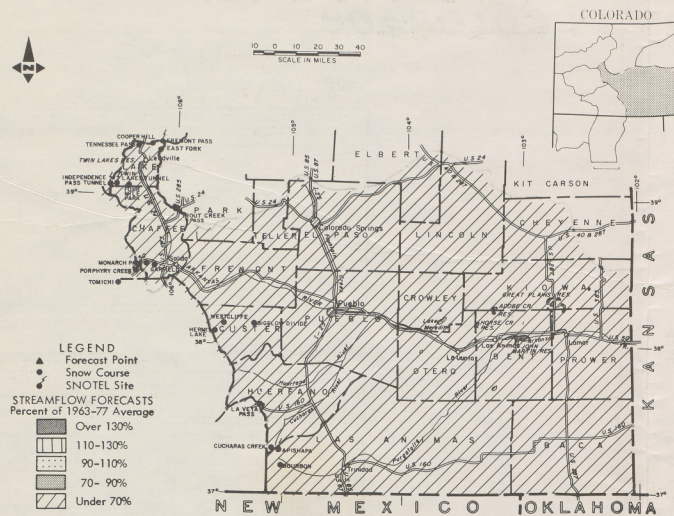
(B)-On adjacent drainage.



Snow sensor performance evaluation at the Columbine Lodge snow research site.



# ARKANSAS RIVER WATERSHED IN COLORADO



## YOUR WATER SUPPLY

THE OUTLOOK FOR THE COMING SEASON'S RUNOFF HAS SUBSTANTIALLY DETERIORATED FROM THE PREVIOUS MONTH AS A RESULT OF PRECIPITATION DURING APRIL WHICH AVERAGED ONLY 1/4 OF NORMAL AND A MOUNTAIN SNOWPACK WHICH IS THE LOWEST ON RECORD. BY THE FIRST OF MAY THERE WAS VIRTUALLY NO SNOW BELOW 10,500 FT. IN THE HEADWATERS OF THE ARKANSAS RIVER. SNOWMELT RUNOFF IS PREDICTED TO BE ONLY 25% OF NORMAL ON THE ARKANSAS RIVER AT PUEBLO. STORAGE IN MAJOR RESERVOIRS IS 160% OF NORMAL AND WILL HELP REDUCE THE IMPACT OF THE EXTREMELY POOR RUNOFF CURRENTLY ANTICIPATED. SOIL MOISTURE IS RATED AT FAIR TO POOR.

## STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
Arkansas River abv Pueblo (1)	65	25	260.0
Arkansas River at Salida (2)	115	40	280.0
Cucharas River near La Veta	4	44	9.1
Huerfano River near Redwing	6	45	13.4
Purgatoire River at Trinidad (3)	14	42	32.8
Grape Creek near Westcliffe	6	38	16.0

(1) Plus change in storage in Pueblo Reservoir. (2) Observed flow plus change in Clear Creek, Twin Lakes and Targuier Reservoirs minus diversions through Park Tunnel, Bearfield, Divide, Twin Lakes and Huerfano Tunnels and Esing, Fremont Pass, Karts and Columbine ditches. (3) Change in storage in Trinidad Reservoir.

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Stream and of RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	1963-77 Average
Adobe	60	35	1	11
Clear Creek	11	6	8	7
Great Plains	150	12	0	42
Holbrook Lake	7	4	6	-
Horse Creek	27	18	20	4
John Martin	621	73	45	39
Lake Henry	8	7	7	-
Meredith	42	2	0	9
Pueblo	351	80	68	-
Trinidad	158	43	23	-
Turquoise	121	70	68	30
Twin Lakes	68	46	33	22

## WATER SUPPLY OUTLOOK

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Apishapa River	Poor	Poor
Fountain Creek	Poor	Poor
Hardscrabble Creek	Poor	Poor
Monument Creek	Poor	Poor

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		LAST YEAR	1963-77 Average
Arkansas	11	8	14
Cucharas	3	0	0
Purgatoire	1	0	0

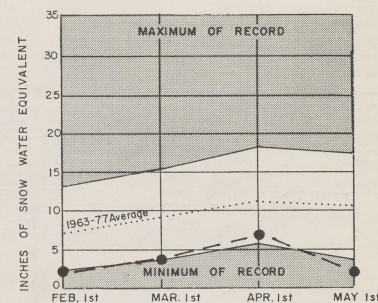
## SNOW COURSE MEASUREMENTS

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVG. 1963-77
<b>ARKANSAS BASIN</b>					
<u>Arkansas River</u>					
Bigelow Divide	4/24	0	0.0	14.8	4.7
Brumley	4/28	0	0.0	14.9	---
Cooper Hill (B)	4/28	22	5.7	17.9	11.7
East Fork	4/28	2	0.6	11.6	7.3
Four Mile Park	4/28	0	0.0	6.8	1.6
Fremont Pass	4/28	27	7.4	23.4	17.7
Garfield	4/29	0	0.0	22.0	9.5
Hermit Lake	4/24	0	0.0	11.3	6.8
Monarch Pass	4/26	0	0.0	23.5	15.3
South Colony	4/29	0	0.0	27.2	---
Tennessee Pass	4/28	0	0.0	12.4	7.4
Twin Lakes Tunnel	4/27	0	0.0	15.3	9.5
Westcliffe	4/24	0	0.0	7.8	2.5
<u>Cucharas River</u>					
Apishapa	4/29	0	0.0	11.9	3.7
Cucharas Creek	4/29	0	0.0	14.6	6.2
La Veta Pass (B)	4/29	0	0.0	14.1	3.2
Huerfano	4/29	0	0.0	12.2	---
<u>Purgatoire River</u>					
Bourbon	4/29	0	0.0	11.0	2.7
Whiskey Creek	4/29	0	0.0	12.2	---

NS-No survey.  
(B)-On adjacent drainage.

## WATERSHED SNOWPACK

Based on 5 Selected Snow Courses \*



\*Four Mile Park, Fremont Pass, Porphyry Creek, Tennessee Pass, Twin Lakes Tunnel.



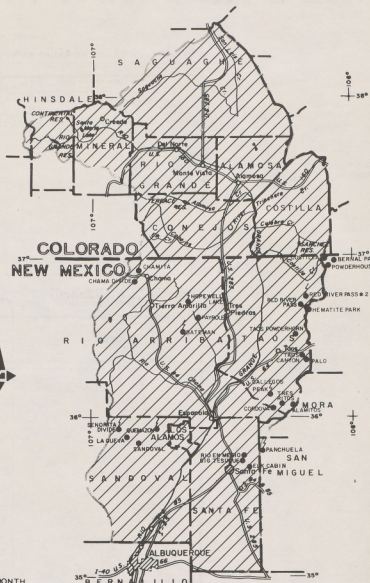
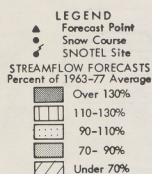
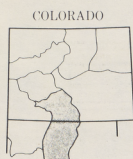
Soil moisture measurements can help plan the application of limited water supplies which are expected during this irrigation season.



Many snow measuring sites have gone bare a month earlier than normal this year as shown at Apishapa SNOTEL data site.



# RIO GRANDE WATERSHED IN COLORADO AND NEW MEXICO



**RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH**

Basin or Stream and RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	1963-77 Average
COLORADO				
Continental	27	9	8	5
Platoro	75	20	20	10
Rio Grande	51	26	42	19
Sanchez	103	18	22	11
Santa Maria	45	8	13	7
Terrace	18	1	8	7
NEW MEXICO				
Avalon	5	2	2	1
Caballo	344	65	92	66
Conchas	273	26	67	122
El Vado	195	118	123	52
Elephant Butte	2195	1160	938	348
McMillan	34	3	16	12
Summer	11	27	55	42

## WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Ex-  
cellent" with Respect to Usual Supply

STREAM or AREA	Flow Period	
	Spring Season	Long Season
<b>COLORADO</b>		
Sangre de Cristo Cr	Poor	Poor
Trinchera Creek	Poor	Poor
<b>NEW MEXICO</b>		
Embudo Creek	Poor	Poor
Mora River	Poor	Poor
Nambe Creek	Poor	Poor
Rio Ojo Caliente	Fair	Poor
Santa Fe Creek	Poor	Poor

**YOUR WATER SUPPLY**

PRECIPITATION DURING APRIL WAS MUCH BELOW NORMAL WHILE TEMPERATURES WERE ABOVE. THIS COMBINATION OF WEATHER ELEMENTS RESULTED IN A RAPID DETERIORATION OF THE MOUNTAIN SNOWPACK CONDITIONS IN BOTH COLORADO AND NEW MEXICO. SNOWPACK IN THE UPPER RIO GRANDE BASIN IN COLORADO IS 29% OF NORMAL COMPARED TO 66% OF NORMAL A MONTH AGO. HOWEVER, CONDITIONS REMAIN BETTER THAN IN 1977, THE LAST DROUGHT YEAR. PREDICTIONS OF SPRING AND SUMMER RUNOFF HAVE ALL BEEN REDUCED TO REFLECT THE DRIER CONDITIONS. ON THE MAINSTEM OF THE RIO GRANDE, STREAMFLOW FORECASTS STEADILY DECREASE MOVING DOWNSTREAM. AT DEL NORTE THE FORECAST IS 50% OF AVERAGE WHILE AT SAN MARCIAL THE FORECAST IS ONLY 19% OF AVERAGE. MOST TRIBUTARY STREAMS TO THE RIO GRANDE ARE EXPECTED TO FLOW 1/3 TO 1/2 OF NORMAL. RESERVOIR STORAGE IS 39% ABOVE NORMAL IN COLORADO AND 118% ABOVE NORMAL IN NEW MEXICO.

## STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	Forecast	% of Average	1963-77 Average
<b>COLORADO (April-September)</b>			
Alamosa Creek above Terrace Reservoir	30	47	63.6
Conejos River near Mogote (1)	115	63	183.0
Culebra Creek at San Luis (2)	8	52	15.3
La Jara Creek near Capulin	3.5	46	7.6
Los Pinos River near Ortiz	30	49	61.3
Rio Grande at Thirty Mile Bridge (3)	65	55	119.0
Rio Grande near Del Norte (3)	230	50	462.0
Saguache Creek near Saguache	14	47	30.1
San Antonio River at Ortiz	4	33	12.2
South Fork of Rio Grande at South Fork	65	55	119.0
Trinchera Water Supply (April-July) (6)	12	55	21.9
<b>NEW MEXICO (March-July)</b>			
Costilla Creek at Costilla (4)	9	58	15.4
Jemez River near Jemez	20	60	33.3
Pecos River at Pecos	16	42	38.1
Red River at Mouth	18	66	27.2
Rio Chama at El Vado	80	45	177.0
Rio Grande at Otowi (5)	180	36	497.0
Rio Grande at San Marcial (5)	65	19	335.0
Rio Hondo near Valdez	7	55	12.8
Rio Pueblo de Taos below Los Cordovas	6	32	19.0
Santa Cruz River at Cundiyo	4	34	11.6

(1) Observed flow plus change in storage in Platoro Reservoir. (2) Observed flow plus change in storage in Conejos Reservoir. (3) Observed flow plus change in storage in Santa Maria, Rio Grande and Continental Reservoirs. (4) Observed flow plus change in storage in El Vado and Alamosa Reservoirs. (5) Observed flow plus change in storage in Rio Grande and San Marcial Reservoirs. (6) Sum of Trinchera Creek near Fort Garland, Rio Grande near Fort Garland, Sangre de Cristo Creek near Fort Garland, and Indian Creek Reservoirs.

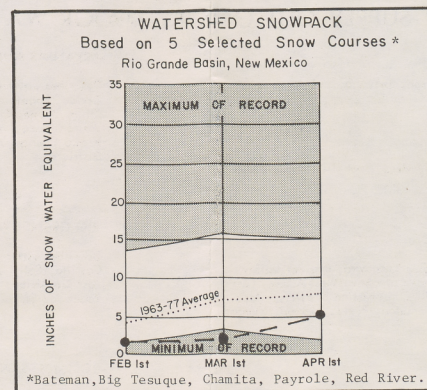
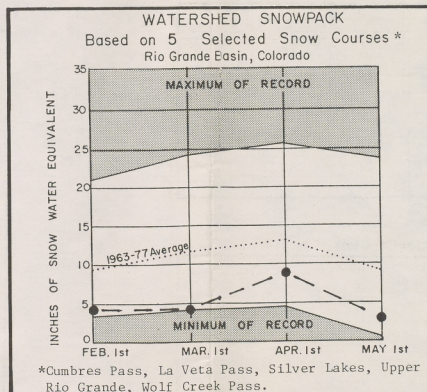
## SUMMARY of SNOW MEASUREMENTS

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	1963-77 Average
COLORADO			
Alamosa	1	0	0
Conejos	6	10	22
Culebra	4	4	11
Rio Grande, CO	13	20	36

## SNOW COURSE MEASUREMENTS

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVG. 63-77
<b>RIO GRANDE BASIN-COLO.</b>					
<b>Alamosa River</b>					
Lily Pond	4/28	0	0.0	23.0	---
Silver Lakes	4/29	0	0.0	1.8	1.6
<b>Conejos River</b>					
Cumbres Pass	4/29	8	3.1	37.6	14.7
Cumbres Trestle	4/29	18	6.4	45.8	17.7
La Manga	4/29	17	4.1	31.3	16.7
Pinos Mill	4/29	8	3.2	41.0	21.9
Platoro	4/29	5	1.7	23.5	11.8
River Springs	4/29	0	0.0	0.8	0.7
<b>Culebra River</b>					
Brown Cabin	4/28	0	0.0	7.7	1.9
Culebra	4/29	4	1.3	11.3	5.2
La Veta Pass (B)	4/29	0	0.0	14.1	3.2
Trinchera (B)	4/28	2	0.4	11.0	6.1
<b>Rio Grande</b>					
Big Meadows	4/28	0	0.0	22.4	10.0
Cochetopa Pass	4/28	0	0.0	7.5	4.0
Grayback	4/28	19	5.0	19.8	13.2
Hilway	4/28	38	14.6	40.3	26.0
Lake Humphrey	4/29	0	0.0	7.3	2.1
Love Lake	4/27	0	0.0	12.2	6.0
Middle Creek	4/27	27	9.9	27.3	---
Pass Creek	4/28	0	0.0	16.1	5.3
Pool Table	4/27	0	0.0	5.9	3.1
Porcupine	4/28	1	0.3	10.6	6.6
Santa Maria	4/28	0	0.0	2.5	1.4
Upper Rio Grande	4/30	3	1.1	10.2	3.5
Wolf Creek Pass	4/28	27	9.5	42.5	22.8
Wolf Cr. Summit (B)	4/28	48	19.0	44.4	30.8

NS-No survey.  
(B)-On adjacent drainage.



## SUMMARY of SNOW MEASUREMENTS

RIVER BASIN and SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		1961 Year	1963-77 Average
<u>NEW MEXICO</u>			
Pecos	--		
Red River	--		
Rio Chama	--		
Rio Grande, NM	--		
Rio Hondo	--		

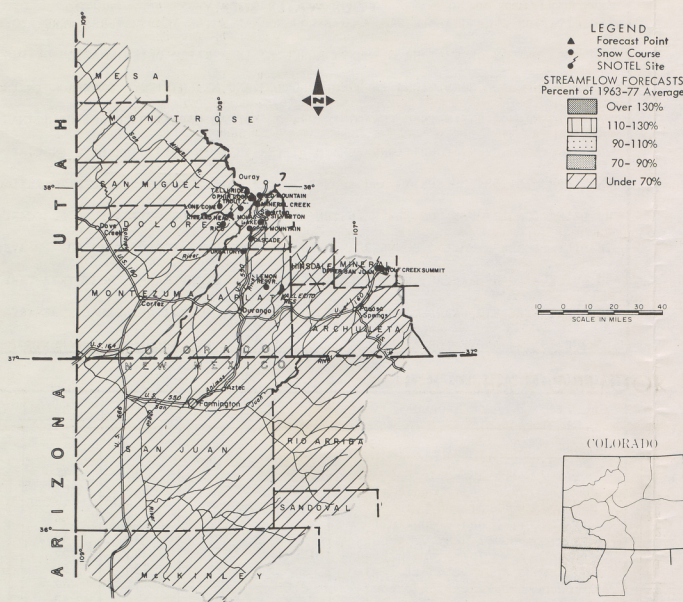
## SNOW COURSE MEASUREMENTS

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVG. 63-77
<b>RIO GRANDE BASIN - NM</b>					
<b>Pecos River</b>					
Panchuela	4/30	0	0.0	0.0	---
<b>Red River</b>					
Hematite Park (B)	4/30	0	0.0	---	---
Red River	4/28	0	0.0	5.3	---
<b>Rio Chama</b>					
Bateman	4/28	4	1.2	17.3	---
Chama Divide	4/29	0	0.0	---	---
Chamita	4/29	0	0.0	7.3	0.7
<b>Rio Grande</b>					
Alamitos	N/S	---	---	---	---
Bernal Trail (B)	N/S	---	---	---	---
Big Tesuque	N/S	---	---	---	---
Cordova	N/S	---	---	---	---
Elk Cabin	N/S	---	---	---	---
Gallegos Peak	4/28	0	0.0	9.4	---
Hopewell	4/30	0	0.0	24.4	13.3
La Cueva	N/S	---	---	---	---
North Costilla	4/29	0	0.0	---	---
Palo	4/30	0	0.0	7.0	---
Payrole	N/S	---	---	---	---
Quemazon	4/30	5	1.1	11.8	---
Rio En Medio	4/29	0	0.0	11.3	3.2
San Antonio Sink	4/28	0	0.0	8.6	---
Sandoval	N/S	---	---	---	---
Senorita Divide	N/S	---	---	---	---
Taos Canyon	N/S	---	---	---	---
Tres Ritos	N/S	---	---	---	---
<b>Rio Hondo</b>					
Taos Powderhorn	N/S	---	---	---	---

NS-No survey.  
(B)-On adjacent drainage.



# SAN MIGUEL, DOLORES, ANIMAS AND SAN JUAN WATERSHEDS IN COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

SNOWPACK IN THE ANIMAS RIVER BASIN HAS DECREASED FROM 60% OF AVERAGE LAST MONTH TO 34% OF AVERAGE AS OF MAY 1. THE DOLORES RIVER WATERSHED HAS ONLY 22% OF AVERAGE THIS MONTH COMPARED TO 68% OF AVERAGE APRIL 1. PRECIPITATION FOR THE AREA WAS 74% OF AVERAGE FOR APRIL AND 66% OF AVERAGE FOR THE SEASON. STREAMFLOW FORECASTS GENERALLY RANGE FROM 1/4 TO 1/2 OF AVERAGE. RESERVOIR STORAGE IS NOW 158% OF AVERAGE. SOIL MOISTURE RANGES FROM FAIR TO POOR. ALL STREAMS WITH HIGH HEADWATERS ARE RISING RAPIDLY WITH THE EARLY MELT.

## STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
Florida River at Bonad	15	42	31.0
Animas River at Durango	190	45	425.0
Dolores River at Dolores	100	43	233.0
La Plata River at Hesperus	10	42	23.5
Los Pinos River at Bayfield (1)	100	49	204.0
Mancos River near Towaoc	4	18	21.9
Inflow to Navajo River (1 & 3)	285	47	608.0
Piedra Creek at Arboles	70	35	201.0
San Juan River at Carracas	170	46	370.0
San Miguel River at Placerville	60	48	124.0

(1) Observed flow plus change in storage in Vallecito Reservoir. (2) March-July. (3) April-July.

## WATER SUPPLY OUTLOOK

Expressed as "Fair, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Hermosa Creek	Fair	Poor
West Dolores River	Fair	Poor
Williams Creek	Fair	Poor

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Stream and of RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	1963-77 Average
Groundhog	22	1	10	12
Jackson Gulch	10	7	4	7
Lemon	40	24	17	23
Navajo	1696	1243	1181	741
Vallecito	126	67	42	66

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN AND SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		LAST YEAR	1963-77 Average
Animas	8	20	33
Dolores	5	11	22
San Juan	6	23	38

## SNOW COURSE MEASUREMENTS

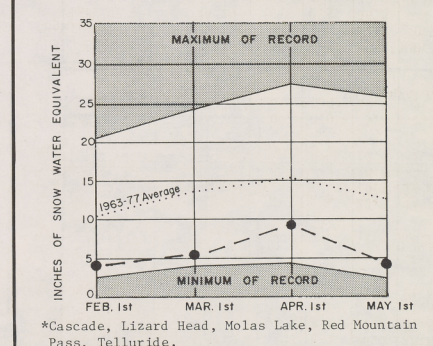
SNOW COURSE	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	PAST RECORD	
				LAST YEAR	AVG. 1963-77
<b>SAN JUAN-DOLORES BASIN</b>					
<u>Animas River</u>					
Cascade	4/28	0	0.0	15.9	5.3
Lemon	4/29	0	0.0	12.6	3.7
Mineral Creek	4/28	0	0.0	21.0	11.5
Molas Lake	4/28	0	0.0	17.3	8.3
Purgatory	4/29	23	8.2	28.3	18.8
Red Mt. Pass (B)	4/28	50	18.4	38.8	31.9
Silverton Sub-Sta.	4/28	0	0.0	6.3	1.6
Spud Mountain	4/28	23	7.8	32.8	21.8
<u>Dolores River</u>					
Groundhog	4/30	0	0.0	14.2	---
Lizard Head	4/29	14	4.6	23.2	14.7
Lone Cone	4/27	13	4.0	19.9	10.0
Ophir Loop	4/28	19	6.3	20.0	---
Rico	4/29	0	0.0	10.9	1.3
<u>Telluride</u>					
Trout Lake	4/28	0	0.0	5.5	2.5
	4/28	0	0.0	20.3	9.3
<u>San Juan River</u>					
Chama Divide (B)	4/29	0	0.0	---	0.0
Chamita (B)	4/29	0	0.0	7.3	0.7
La Plata	4/29	6	2.5	36.5	---
Mancos T-Down	4/29	0	0.0	32.0	25.9
Upper San Juan	4/28	31	11.7	47.4	24.9
Wolf Cr. Pass (B)	4/28	27	9.5	42.5	22.8
Wolf Cr. Summit	4/28	48	19.0	44.4	30.8

00-No survey.

(B)-On adjacent drainage.

## WATERSHED SNOWPACK

Based on 5 Selected Snow Courses \*



## WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

### -GUNNISON RIVER WATERSHED

Describes water supply conditions in Delta, Gunnison, Cimarron, Shavano, and Uncompahgre Soil Conservation Districts.

### -COLORADO RIVER WATERSHED

Describe water supply conditions in DeBeque, Plateau Valley, Mesa, Bookcliff, Eagle County, Middle Park, South Side, and Mt. Sopris Soil Conservation Districts.

### -SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Fort Collins, Big Thompson, Longmont, Boulder Valley, Jefferson, Teller-Park, Douglas County, Morgan, Kiowa, West Arapahoe, West Adams, East Adams, Platte Valley, Southeast Weld, and West Greeley Soil Conservation Districts. Also describes water supply conditions in Sedgwick, South Platte, Haxton, Peetz, Padroni, Morgan, Rock Creek, and Yuma Soil Conservation Districts.

### -YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED

Describes water supply conditions in Yampa, Moffat, West Routt, East Routt, North Park, White River, and Douglas Creek Soil Conservation Districts.

### -ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Central Colorado, Turkey Creek, South Pueblo, Olney Boone, Cheyenne, Upper Huerfano, Spanish Peaks, Purgatoire River, Trinchera, Western Baca, Southeastern Baca, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, Kiowa County, West Otero, East Otero, Prairie, Hi Plains, and Double El Soil Conservation Districts.

### -RIO GRANDE WATERSHED

Describes water supply conditions in Rio Grande, Center, Conejos, Mosca Hooper, and Costilla, Soil Conservation Districts. Also describes water supply conditions in UpperChama, East Rio Arriba, Taos, Lindirih, Jemez, Santa Fe-Pojoaque, Sandoval, Tijeras, Cuba and Edgewood Soil Conservation Districts.

### -DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

Describes water supply conditions in San Miguel Basin, Dove Creek, Dolores, Mancos, LaPlata, Pine River, San Juan, San Miguel Basin, and Glade Park Soil Conservation Districts.